

What is claimed is:

1. A molding method of a microlens array whereby the microlens array 30 is molded by heating and compressing a glass element 3 between oppositely placed first and second cores 1, 2, comprising the steps of:

forming a depression or projection part 10A on the compression molding surface 10 of at least one of the cores 1 for transferring and molding a plurality of convex or concave lens elements 31;

setting a glass element 3 between the compression molding surfaces 10, 11 of the first and second cores 1, 2; thereafter

compressing the glass element 3 between the compression molding surfaces 10, 11 of the first and second cores 1, 2 while providing restriction means 4 for preventing the glass element 3 from escaping in the direction perpendicular to the compression direction of the glass element 3; and

compression molding the glass element with the restriction means 4 and between the compression molding surfaces 10, 11 of the first and second cores 1, 2.

2. The molding method of a microlens array according to claim 1, wherein the compression molding of the glass element 3 is conducted in vacuum.

3. A molding apparatus of a microlens array, whereby a microlens array 30 is molded by heating and compressing a glass

element 3 between oppositely placed first and second cores 1, 2, wherein

a depression or projection part 10A is formed on a compression molding surface 10 of at least one of the first and second cores 1, 2 for transferring and molding a plurality of convex or concave lens elements 31;

a middle plate having a hole 4A at its center is provided;

the glass element 3 is set in the hole 4A of a middle plate 4, and a tip part 1A including the compression molding surface 10 of said at least one of the cores 1 is disposed so as to be able to ascend or descend in the hole 4A of the middle plate 4; and

the glass element 3 is compression molded by means of said compression molding surfaces 10, 11 of the cores 1, 2 and the inner peripheral surface of the hole 4A of the middle plate 4 by moving said compression molding surfaces 10, 11 of both cores 1, 2 in a relatively closing direction.

4. The molding apparatus of a microlens array according to claim 3, wherein a vacuum state is maintained during the compression molding of the glass element 3.